

Positive Displacement Pumps— Reciprocating

API STANDARD 674
THIRD EDITION, DECEMBER 2010

ERRATA, MAY 2014
ERRATA 2, APRIL 2015

REAFFIRMED, NOVEMBER 2016



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Downstream Segment

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Contents

	Page
1 Scope	1
2 Normative References	1
3 Terms and Definitions	4
4 General	8
4.1 Units of Measurement	8
4.2 Subvendor control	9
5 Statutory Requirements	9
6 Basic Design	9
6.1 General	9
6.2 Selection of Pump Type	12
6.3 Ratings	12
6.4 Pressure-Containing and Pressure-Retaining Parts	15
6.5 Cylinder Connections	16
6.6 External Forces and Moments	18
6.7 Liquid End Features	19
6.8 Power End Running Gear	21
6.9 Direct-Acting Pump	23
6.10 Lubrication	24
6.11 Materials	25
6.12 Nameplates and Rotation Arrows	31
7 Accessories	32
7.1 Drivers	32
7.2 Couplings and Guards	34
7.3 Belt Drives	35
7.4 Mounting Plates	36
7.5 Controls and Instrumentation	38
7.6 Auxiliary Piping	40
7.7 Pulsation and Vibration Control Requirements	43
7.8 Special Tools	44
8 Inspection, Testing, and Preparation for Shipment	44
8.1 General	44
8.2 Inspection	45
8.3 Testing	46
8.4 Preparation for Shipment	50
9 Vendor's Data	51
9.1 General	51
9.2 Proposal	52
9.3 Contract Data	54
Annex A (informative) Pump Material Specifications	56
Annex B (informative) Vendor Drawing and Data Requirements (VDDR) (Typical)	61
Annex C (informative) Pulsation and Vibration Control Techniques	66
Annex D (informative) Reciprocating Positive-Displacement Data Sheets	70

Contents

	Page
Annex E (informative) Net Positive Suction Head Versus Net Positive Inlet Pressure	82
Annex F (informative) Inspector's Checklist	5
Annex F (informative) Lubrication System	87
Bibliography	90
Figures	
1 Kinematic Viscosities	13
C.1 Discharge Pressure Pulsations	69
G.1 Lube Oil System Schematic	87
Tables	
1 Maintenance and Wear Parts	9
2 Cooling Water System Design Requirements	10
3 Speed Ratings for Power Pumps in Continuous Service	12
4 Speed Ratings for Direct-Acting Pumps in Continuous Service	12
5 Casting Factors	15
6a Forces and Moments on Process Connections (SI)	18
6b Forces and Moments on Process Connections (US Customary)	19
7 Bearing Selection	22
8 Maximum Severity of Defects in Steel Castings	26
9 Welding Requirements	30
10 Minimum Requirements for Piping Materials	41
11 Materials Inspection Standards	46
12 Maximum Severity of Defects in Castings	46
13 Test Tolerances	49
A.1 Materials Specifications for Reciprocating Pump Parts	57
B.1 Vendor Drawing and Data Requirements (VDOR) (Typical)	62
G.1 Lube Oil System Schematic	88

Positive Displacement Pumps—Reciprocating

1 Scope

This standard covers the minimum requirements for reciprocating positive displacement pumps and pump units for use in the petroleum, petrochemical, and gas industry services. Both direct-acting and power-frame types are included. Controlled-volume pumps, hydraulically driven pumps, and rotary pumps are not included.

Note: See API 675 for controlled-volume pumps and API 676 for rotary pumps.

2 Normative References

2.1 The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Specification 5L: 2004, *Specification for Line Pipe*

API Standard 526:2002, *Flanged Steel Pressure Relief Valves*

API Standard 541:2002, *Form-wound Squirrel Cage Induction Motors — 250 Horsepower and Larger*

API Standard 546:1997, *Brushless Synchronous Machines — 500 kVA and Larger*

API Standard 611:1997, *General-purpose Steam Turbines for Petroleum, Chemical, and Gas Industry Services*

API Standard 677:1997, Reaffirmed: 2000, *General-purpose Gear Units for Petroleum, Chemical and Gas Industry Services*

API Recommended Practice 500A, *Classification of Locations for Electrical Installations in Petroleum Refineries*

API Recommended Practice 686:1996, *Machinery Installation and Installation Design*

ANSI/ABMA 7:1995 ¹, *Shaft and Housing Fits for Metric Radial Ball And Roller Bearings (Except Tapered Roller Bearings) Conforming To Basic Boundary Plan*

ANSI/AGMA 2015-1:2001 ², *Accuracy Classification System — Tangential Measurements for Cylindrical Gears*

ANSI/AGMA 6010:2003, *Standard for Spur, Helical, Herringbone, and Bevel Enclosed Drives*

ANSI/AGMA 6009:2000, *Standard for Gearmotor, Shaft Mounted, and Screw Conveyor Drives*

ANSI/AGMA 9002:2001, *Bores and Keyways for Flexible Couplings (Inch Series)*

ASA S11.1-19.9 ³, *Mechanical Vibration — Balance Quality Requirements of Rigid Rotors — Part 1: Determination of Permissible Residual Unbalance, Including Marine Applications*

ASME Boiler and Pressure Vessel Code ⁴, Section V:2001, *Non-destructive Examination*

ASME Boiler and Pressure Vessel Code, Section VIII:2001, *Rules for Construction of Pressure Vessels, Division 1*

¹ American Boiler Manufacturers Association, 8221 Old Courthouse Road, Suite 207, Vienna, Virginia 22182, www.abma.com.

² American Gear Manufacturers Association, 500 Montgomery Street, Suite 350, Alexandria, Virginia 22314, www.agma.org.

³ Acoustical Society of America, 35 Pinelawn Road, Suite 114 East, Melville, NY 11747, <http://asa.aip.org>.

⁴ ASME International, 3 Park Avenue, New York, New York 10016-5990, www.asme.org.